

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method performed by an image processing device for determining a volume of an object from three-dimensional volume data including graphic information units, comprising:

- determining a volume of interest including the object;
- determining thresholds of the graphic information units in the volume of interest;
- performing a distance transform on [[the]] a basis of the thresholds for determining a distance map consisting of voxels;
- providing a seed point in the distance map, which seed point is on the object;
- determining a number of core-voxels and a number of front-voxels by using the seed point; and

- determining the volume of the object on [[the]] a basis of the number of core-voxels and the number of front-voxels,

- wherein at least one of the determination of the number of core-voxels and the number of front-voxels is performed by a downhill expansion of the voxels, and

- wherein the voxels are immediately expanded as long as a growth is directed downwards in a relief of the distance map such that a growth speed is varying.

2. (Cancelled)

3. (Currently Amended) The method of claim [[2]] 1, further comprising the step of: ensuring that the growth continues close to an approximate center of the object by using a priority criterion for directing the growth, wherein the priority criterion is based on a maximum directional second derivate in the distance map.

4. (Currently Amended) The method of claim [[2]] 1, further comprising the steps of: determining a curve of a sum of voxel distance values of the front voxels in the distance map; determining a minimum of the curve; and deciding on a point to cut off the growth

by using the minimum.

5. (Original) The method of claim 1, wherein the object consists of at least one nodule attached to one of the lung wall, the diaphragm and a vessel of the surrounding vasculature and wherein the graphic information units correspond to Hounsfield units.

6. (Currently Amended) Image processing device, comprising:

a memory for storing three-dimensional volume data; and

an image processor for determining a volume of an object from the three-dimensional volume data which includes graphic information units, which image processor is adapted to perform the following operations:

determining a volume of interest including the object;

determining thresholds of the graphic information units in the volume of interest;

performing a distance transform on ~~[[the]]~~ a basis of the thresholds for determining a distance map consisting of voxels;

providing a seed point in the distance map, which seed point is on the object; determining a number of core-voxels and a number of front-voxels by using the seed point; and

determining the volume of the object on ~~[[the]]~~ a basis of the number of core-voxels and the number of front-voxels,

wherein at least one of the determination of the number of core-voxels and the number of front-voxels is performed by a downhill expansion of the voxels, and

wherein the voxels are immediately expanded as long as a growth is directed downwards in a relief of the distance map and wherein a growth speed is varying.

7. (Cancelled)

8. (Currently Amended) The image processing device of claim ~~[[7]]~~ 6, wherein the image processor is further adapted to perform the following operation: ensuring that the growth continues close to an approximate center of the object by using a priority criterion for

directing the growth, wherein the priority criterion is based on a maximum directional second derivate in the distance map; determining a curve of a sum of voxel distance values of the front voxels in the distance map; determining a minimum of the curve; and deciding on a point to cut off the growth by using the minimum.

9. (Currently Amended) The image processing device of claim 6, wherein the image processing device is a computer aided tumor volumetric measuring device for computer aided volumetric measurements on ~~[[the]]~~ a basis of computed tomography (CT) image scans.

10. (Currently Amended) Computer program embodied on a computer-readable medium comprising computer code means for performing the following operation for determining a volume of an object from three-dimensional volume data including graphic information units when the computer code means is executed on a computerized image processing device:

- determining a volume of interest including the object;
- determining thresholds of the graphic information units in the volume of interest;
- performing a distance transform on ~~[[the]]~~ a basis of the thresholds for

determining a distance map consisting of voxels;

- providing a seed point in the distance map, which seed point is on the object;
- determining a number of core-voxels and a number of front-voxels by using the seed point; and
- determining the volume of the object on ~~[[the]]~~ a basis of the number of core-voxels and the number of front-voxels,

wherein at least one of the determination of the number of core-voxels and the number of front-voxels is performed by a downhill expansion of the voxels, and

wherein the voxels are immediately expanded as long as a growth is directed downwards in a relief of the distance map such that a growth speed is varying.